



- 1 The expression shown below describes a pattern of numbers.

$$3(n - 1)$$

If n represents a number's position in the sequence, which pattern of numbers does the expression describe?

- A 3, 6, 9, 12, 15, ...
- B 0, 3, 6, 9, 12, ...
- C 0, 1, 2, 3, 4, ...
- D 2, 5, 8, 11, 14, ...

- 2 Brenda bought $8\frac{1}{2}$ pounds of hamburger meat for a party. If the hamburger costs \$2.85 per pound, which equation can Brenda use to find c , the cost to buy the hamburger meat?

- A $c = 8.5 - 2.85$
- B $c = 8.5 \div 2.85$
- C $c = 8.5 + 2.85$
- D $c = 8.5 \cdot 2.85$

- 3 Mary Ann needs to buy a pair of baseball cleats for her son that cost \$74.95. If the sales tax is 8.25%, what is a reasonable estimate for the amount of sales tax Mary Ann will pay?

- A \$6.00
- B \$8.00
- C \$60.00
- D \$66.00

- 4 It takes 1 can of spray paint to paint $1\frac{1}{2}$ patio chairs. Which proportion can be used to find the number of cans of spray paint needed to paint 9 patio chairs?

- A $\frac{1}{9} = \frac{1.5}{x}$
- B $\frac{1}{x} = \frac{9}{1.5}$
- C $\frac{1}{1.5} = \frac{x}{9}$
- D $\frac{1}{1.5} = \frac{9}{x}$



- 5** Chris wants to buy a new pair of basketball shoes. He has \$15.00 and his grandmother said she would give him \$20 for mowing her lawn. If Chris wants to determine how much money he still needs to buy the shoes, what other information is needed?
- A The difference between the amount of money his grandmother will give him and the amount of money he has
 - B The product of the amount of money his grandmother will give him and the amount of money he has
 - C The size of the basketball shoes
 - D The cost of the basketball shoes

- 6** Paul has collected 1,800 stamps. He wants to put the stamps in books to maintain their condition. Each book has 20 pages, and each page can hold 18 stamps. Which expression can Paul use to find the number of books he will need for all his stamps?

- A $1800(20 \cdot 18)$
- B $1800 \div (20 \cdot 18)$
- C $1800 \div (20 + 18)$
- D $1800 - (20 \cdot 18)$

- 7** Kathryn can ride her bicycle 17 miles in 2 hours. At this rate, how long will it take her to ride 51 miles?

- A 102 hours
- B 34 hours
- C 8.5 hours
- D 6 hours



- 8 Jennifer bought 4.25 pounds of chocolate covered pecans. If each pound of chocolate covered pecans cost \$2.40, how much did Jennifer pay for the chocolate covered pecans?

A \$10.20
B \$8.65
C \$6.65
D \$1.85

- 9 Judy has $18\frac{3}{4}$ yards of silver ribbon to make homecoming mums. If she wants to use pieces of ribbon that are $\frac{3}{4}$ -yard long, how many pieces of silver ribbon can she cut from $18\frac{3}{4}$ yards?

A 14 pieces
B 18 pieces
C 20 pieces
D 25 pieces

- 10 Let n represent the position of a term in the sequence below.

11, 17, 23, 29, 35, 41, ...

Which algebraic expression can be used to find the n th term of the sequence?

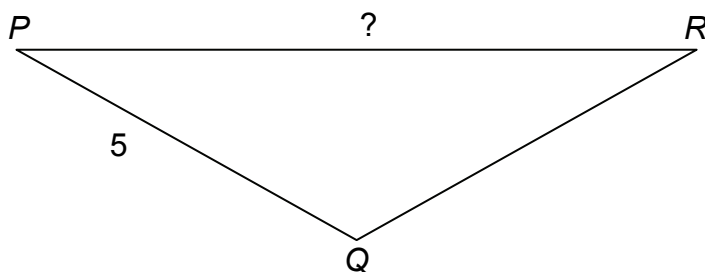
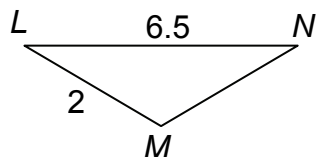
A $5n + 6$
B $6n + 5$
C $n + 6$
D $6n$

- 11 Denise wants to buy a dress that costs \$100. She has a coupon for a discount on any item she purchases. She used the coupon, paid sales tax for the dress, and spent a total of \$86.00. Which of the following could be the percent of discount of the coupon and the sales tax rate that Denise was charged for the dress?

A 80% discount and 6% sales tax
B 25% discount and 8.25% sales tax
C 20% discount and 7.5% sales tax
D 14% discount and 10% sales tax



- 12 Triangle LMN is similar to $\triangle PQR$.



What is the length of \overline{PR} ?

- A 5
- B 9.5
- C 16.25
- D 22.5

- 13 The table below shows a relationship between x and y .

x	0	1	3	5	8
y	-2	1	7	13	22

Which equation represents the relationship?

- A $y = 3x - 2$
- B $y = x + 3$
- C $y = x - 2$
- D $y = 2x - 3$



- 14** Howard earns \$600 per week for working 40 hours. If he works more than 40 hours in a week, he gets paid \$22.50 per hour for each hour above 40 hours. Which equation can Howard use to find c , the amount of money he will earn for working 45 hours last week?

A $c = 22.50(45)$

B $c = 600 + 22.50(45 - 40)$

C $c = 600 + 22.50(45)$

D $c = 600 + 22.50(40)$

- 15** Monica went to a salon to get her hair cut. The cost for the haircut and blow dry was \$39.00. If Monica gave her stylist a 15% tip, what is a reasonable estimate for the total amount she spent at the Hair Salon?

A \$6.00

B \$15.00

C \$40.00

D \$46.00

- 16** Which equation could be used to find m , the number of minutes in h hours?

A $m = 60 - h$

B $m = h \div 60$

C $m = 60h$

D $m = h + 60$

- 17** In last week's basketball game, Mattie scored 17 of the team's 85 points. What percent of the total points did Mattie score?

A 68%

B 20%

C 17%

D 5%



- 18** A 4-pound bag of walnuts costs \$14.00. Which of the following bags of walnuts would be the same price per pound?

A A 2-pound bag for \$6.00
B A 3-pound bag for \$10.50
C A 5-pound bag for \$18.00
D A 10-pound bag for \$30.00

- 19** Martha is going to buy previously viewed DVDs from a video store. Each DVD costs \$12.50. How many DVDs can Martha buy for \$100.00?

A 6 DVDs
B 7 DVDs
C 8 DVDs
D 10 DVDs

- 20** The planet Mars is approximately 7.1×10^8 miles from the sun. How would this distance be expressed in standard notation?

A 7,100,000,000 miles
B 710,000,000 miles
C 71,000,000 miles
D 0.000000071 mile

- 21** A porpoise is 6 feet below the water level in his tank then descends at a rate of 3 feet per second. Which integer represents the depth of the porpoise after 10 seconds?

A 30
B 24
C -24
D -36



- 22** Which list shows the numbers in order from greatest to least?

A $0.75, \frac{3}{8}, \frac{2}{5}, \frac{1}{2}, 0.25$

B $0.75, \frac{2}{5}, \frac{3}{8}, \frac{1}{2}, 0.25$

C $0.75, 0.25, \frac{1}{2}, \frac{3}{8}, \frac{2}{5}$

D $0.75, \frac{1}{2}, \frac{2}{5}, \frac{3}{8}, 0.25$

- 23** Which fraction below is between $\frac{3}{8}$ and $\frac{3}{4}$?

A $\frac{1}{3}$

B $\frac{1}{2}$

C $\frac{4}{5}$

D $\frac{7}{8}$

- 24** Bonnie put money into her savings account. The table below shows the relationship between the number of months and the amount of money in her savings account.

Bonnie's Savings

Number of months	Savings
1	\$85.00
2	\$135.00
6	\$335.00
9	\$485.00

Based on the pattern in the table, how much will Bonnie have in her savings account after 18 months?

- A \$935.00
B \$970.00
C \$1,005.00
D \$1,530.00

- 25** How would 0.000000248 be expressed in scientific notation?

- A 2.48×10^{-7}
B 2.48×10^{-6}
C 2.48×10^6
D 2.48×10^7